AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for enhancing the capacity of a cellular radio-communication system, a cell of said radio-communication system comprising a first base station and end-users able to communicate with said base station by using a first modulation type over a first channel, said cell experiencing an interference level from distant end-users communicating with at least one distant base station by using said first communication channel, said method comprising:

determining size and location of at least one domain in said cell based both a) on antenna directivity of said distant end-users-users, and also b) on relative positions of said at least one distant base station and said first base station relative to said distant end-users which are aligned with both said distant base station and said first base station; and

assigning a second modulation type to said at least one domain of said cell in which said interference level is lower than a predefined interference level,

wherein end-users located in said domain communicate with said first base station by using said second modulation type over a second communication channel, said second modulation type having a higher efficiency than said first modulation type.

2. (previously presented): A method according to claim 1, wherein said end-users are fixed terminals, said method further comprising configuring said end-users to use only said second modulation type if said end-users are located in said at least one domain in which said interference level is lower than said predefined interference level and configuring said end-users to use only said first modulation type if said end-users are not located in said at least one domain.

3. (previously presented): A method according to claim 1, wherein said end-users are mobile terminals able to switch between said first modulation type and said second modulation type, said method further comprising configuring said end-users to use only said second modulation type if said end-users are located in said at least one domain in which said interference level is lower than said predefined interference level and configuring said end-users to use only said first modulation type if said end-users are not located in said at least one domain.

4. (currently amended): A method according to one of the claim 1, characterised in that, that said first modulation type is 4 QAM and said second modulation type is 16QAM.

5. (currently amended): A method according to one of the claim 1, characterised in that said first and second communication channels are channels of a frequency and/or time and/or code division multiplex scheme.

6. (currently amended): A cellular radio-communication system comprising:

at least one cell comprising at least one domain having an assigned modulation type;

a first base station, wherein end-users communicate with said first base station by using a first modulation type over a first communication channel; and

at least one distant base station, said cell experiencing an interference level from distant

end-users communicating with said at least one distant base station by using said first

communication channel,

wherein, when said end-users are located in said at least one domain of said cell and said

interference level is lower than a predefined interference level, said assigned modulation type is

a second modulation type and said end-users communicate with said first base station by using

said second modulation type over a second communication channel, said second modulation type

having a higher efficiency than said first modulation type, and

wherein size and location of said at least one domain is defined based depend both a) on

antenna directivity of said distant end-users users, and also b) on relative positions of said at least

one distant base station and said first base station relative to said distant end-users which are

aligned with both said distant base station and said first base station.